State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 20, 2003

TO: Minerals File

FROM: Paul Baker, Senior Reclamation Biologist

RE: Site Inspection, Western Clay, Last Chance Clay Mine, M/015/061, Emery County, Utah

Date of Inspection:	February 11, 2003
Time of Inspection:	about 3:45 to 4:45 p.m.
Conditions:	Mostly cloudy, 30's
Participants:	Wally Curtis, Jeff McClellan, and Cory Thurston, Western Clay; Paul Baker and Susan White, DOGM

Purpose of Inspection:

We wanted to visit the site since we were in the area.

Getting to the site:

Beginning at the Fremont Junction exit from I-70, head south then east for 2.0 miles. At this point there is a gravel pit, and the road forks. Take the right fork and stay on the main road for 9.2 miles. Turn left for 1.2 miles to the mine.

Observations:

We understood from the operator's representatives that the site was originally a hogback type of formation that has now been mined to where it is basically a pit. Some of the original formation remains on the north side, and we were told there will not be a lot more mining in this area because of impurities in the clay.

We discussed whether the operator has salvaged soil, but after seeing the adjacent areas and the type of material that was over what has been mined, it is apparent there is no real soil. On top of the overburden is a thin veneer of a rock that is more durable than the underlying shale. The operator pushed this material into a windrow on the northeast side of the pit. There is also a much larger windrow of overburden northeast of the pit. The operator intends to mine to the northeast as the clay deposit dips below the ground level, so the two windrows will need to be moved and additional overburden stripped to mine the clay.

In the undisturbed area north of the mine, there is a population of Winkler's footcactus, a federally listed threatened species. The operator has marked several individuals of this diminutive species. Although they are still below ground level and would be extremely difficult to find if we hadn't known where they were, most of them were visible.

We found another plant growing in this same area that looks like a *Townsendia* sp. and that we thought could be *Townsendia aprica*, Last Chance Townsendia, another threatened species. Wayne Ludington from the Bureau of Land Management has examined the plants in this area and does not believe they are Last Chance Townsendia.

Other plants we found growing in undisturbed areas include Castle Valley saltbush (*Atriplex gardneri* Var. *cuneata*), galleta, and Indian ricegrass. We did not look at the areas where the clay outcrops, but I suspect there is little vegetation growing in these areas. The plan says there is none, but there could be a little mat saltbush and galleta.

In general, the operation is very clean, and we just had a few recommendations about reclamation (see below).

Conclusions and Recommendations:

The operator intends that the regraded site will have positive drainage. We recommended that, as far as possible and reasonable, it should also be regraded to match some of the surrounding terrain with ridges in a northwest-southeast orientation. The veneer material that was taken from the top of the northeast-facing slopes should be treated as a topdressing that is spread over part of the area prior to reseeding. The rock in this material should help both with vegetation establishment and erosion control.

The revegetation seed mix should include Castle Valley saltbush and Indian ricegrass. The Division is working with a coal mine operator to see if summer seeding of warm season grasses, like galleta, is more successful than fall seeding. Depending on the results of this experiment, galleta might also be included in a seed mix.

jb
cc: Brad Boyter, Western Clay
Dean Nyffeler, Price BLM
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